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## NOTICE OF ALLOWANCE AND FEE(S) DUE

22801 7590 03/31/2009

LEE & HAYES, PLLC  
601 W. RIVERSIDE AVENUE  
SUITE 1400  
SPOKANE, WA 99201

EXAMINER

HOANG, PHUONG N

ART UNIT

PAPER NUMBER

2194

DATE MAILED: 03/31/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/716,108

11/18/2003

Mark A. Alcazar

MS1-1799US

6123

TITLE OF INVENTION: PERSISTING STATE ACROSS NAVIGATIONS IN A NAVIGATION-BASED APPLICATION AND RESPONDING TO  
NAVIGATION-RELATED EVENTS THROUGHOUT AN APPLICATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/30/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to:** Mail **Mail Stop ISSUE FEE**  
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**P.O. Box 1450**  
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**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

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22801 7590 03/31/2009

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 SUITE 1400  
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## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/716,108 11/18/2003 Mark A. Alcazar MSI-1799US 6123

**TITLE OF INVENTION:** PERSISTING STATE ACROSS NAVIGATIONS IN A NAVIGATION-BASED APPLICATION AND RESPONDING TO NAVIGATION-RELATED EVENTS THROUGHOUT AN APPLICATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/30/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
HOANG, PHUONG N	2194	719-328000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number** is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1  
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2  
 3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee  
☐ Publication Fee (No small entity discount permitted)  
☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.  
☐ Payment by credit card. Form PTO-2038 is attached.  
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_  
 Typed or printed name \_\_\_\_\_ Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,108	11/18/2003	Mark A. Alcazar	MSI-1799US	6123
22801	7590	03/31/2009	EXAMINER	
LEE & HAYES, PLLC 601 W. RIVERSIDE AVENUE SUITE 1400 SPOKANE, WA 99201			HOANG, PHUONG N	
			ART UNIT	PAPER NUMBER
			2194	
DATE MAILED: 03/31/2009				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 459 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 459 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

## Application No.

10/716,108

## Examiner

PHUONG N. HOANG

## Applicant(s)

ALCAZAR ET AL.

## Art Unit

2194

### - The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to interview 3/18/2009 and examiner's amendment.
2. ☒ The allowed claim(s) is/are 1 - 2, 5 - 8, 10 - 19, 21 - 26; now renumbered as 1 - 22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 12/18/08
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

/Li B. Zhen/  
Primary Examiner, Art Unit 2194

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with MR. NingningXu (Reg. No. L0293) on 3/18/2009.

### **INTERVIEW SUMMARY**

3. During a telephone interview with Mr. Ningning Xu on 3/18/2009, examiner submitted that the "computer-readable medium" recited in claims 16 – 19, 21 - 26 can include carrier waves as disclosed in paragraphs [0024 – 0025] of the specification. Mr. Ningning Xu authorized the amendment to claims 16 – 19, 21 - 26 to recite "computer-readable storage medium". Mr. Ningning Xu also verified that the term "computer-readable storage medium" is intended to only cover physical storage media such as CD, DVD, harddisk, etc. and not "carrier wave" as disclosed in paragraphs [0024 – 0025] of specification.

**TERMINAL DISCLAIMER**

4. The terminal disclaimer filed on 3/20/2009 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent granted on applications with serial no. (10/011,658 and 11/056,514) has been reviewed and is accepted. The terminal disclaimer has been recorded.

5. Amend the claims according to the following:

**Claims:**

1. **(Currently amended)** ~~A software architecture implemented at least in part by a~~ computing device for executing a navigation-based web application at the computing device, the computing device ~~software architecture~~ comprising:

a processor;

a first set of application programming interfaces, implemented and executed by the computing device, configured to support execution of the navigation-based web application within the software architecture,

wherein the navigation-based web application comprises:

multiple web pages expressed in declarative languages and hyperlinked together;

a plurality of resources distributed to the multiple web pages, the plurality of resources each having state information reflecting its current state; and

one or more business logic within an extent of the navigation-based web application, the one or more business logic being applied to the multiple web pages and the plurality of resources of the navigation-based web application; and wherein the first set of application programming interfaces comprises a ShutDown method that, when called, is operative to cause the state information of each of the plurality of resources to be saved when the navigation-based web application is shut down;

a second set of application programming interfaces, implemented and executed by the computing device, configured to support navigation-related activities of the navigation-based web application, wherein:

the navigation-related activities are activities arising from navigation among the multiple pages of the navigation-based web application;

a navigation-based web application object is created after the navigation-based web application is launched at the computing device, the navigation-based web application object ~~:-instantiating the navigation-based web application;~~ and

residing in a runtime execution environment of the computing device; and

the state information of each of the plurality of resources of the navigation-based web application is:

persisted within the navigation-based web application object;

made accessible to the plurality of other resources within the navigation-based web application; and

modified according to the one or more business logic in response to an occurrence of the navigation-related activities during a session of the navigation-based web application.

2. **(Currently amended)** The computing device ~~software architecture~~ recited in claim 1, wherein the first set of application programming interfaces further comprises a StartingUp method that includes executable instructions that are executed to load the state information of each of the plurality of resources ~~states~~ of the navigation-based web application when [[it]] the navigation-based web application is being launched.

3. **(Canceled).**

4. **(Cancelled).**

5. **(Currently amended)** The computing device ~~software architecture~~ recited in claim 1, wherein the first set of application programming interfaces further comprises a Windows collection in which is stored information that identifies one or more windows that are used in connection with the navigation-based web application.

6. **(Currently amended)** The computing device ~~software architecture~~ recited in claim 1, wherein the first set of application programming interfaces further comprises a



Resources property that specifies the plurality of resources that apply to the multiple pages within an extent of the navigation-based web application.

**7. (Currently amended)** The computing device ~~software architecture~~ recited in claim 1, wherein the second set of application programming interfaces comprises a Properties collection in which is stored information about a state of the navigation-based web application during execution.

**8. (Currently amended)** The computing device ~~software architecture~~ recited in claim 1, wherein the second set of application programming interfaces comprises a StartUpURI property that specifies the plurality of resources to which the navigation-based web application navigates upon being launched.

**9. (Cancelled).**

**10. (Currently amended)** The computing device ~~software architecture~~ recited in claim 8, wherein the plurality of resources comprise an executable resource.

**11. (Currently amended)** The computing device ~~software architecture~~ recited in claim 1, wherein the second set of application programming interfaces comprises a set of events related to an occurrence of a navigation by the navigation-based web application.

**12. (Currently amended)** The computing device ~~software architecture~~ recited in claim 11, wherein the set of events comprises a Navigating event indicative of an initiation of the navigation.

**13. (Currently amended)** The computing device ~~software architecture~~ recited in claim 11, wherein the set of events comprises a Navigated event indicative of completion of the navigation.

**14. (Currently amended)** The computing device ~~software architecture~~ recited in claim 11, wherein the set of events comprises a NavigationError event indicative of an occurrence of an error during the navigation.

**15. (Currently amended)** The computing device ~~software architecture~~ recited in claim 11, wherein the set of events comprises a NavigationProgress event that is raised periodically during the navigation to enable information about the navigation to be discerned.

**16. (Currently amended)** A computer-readable storage medium having computer-executable components for supporting execution of a navigation-based web application, the components comprising:

an application programming interface exposed by the navigation-based web application, the navigation-based web application comprising:

multiple web pages expressed in declarative languages and hyperlinked together;

a plurality of resources distributed to the multiple web pages, the plurality of resources each having state information reflecting its current state; and one or more business logic within an extent of the navigation-based web application, the one or more business logic being applied to the multiple web pages and the plurality of resources of the navigation-based web application;

the application programming interface including:

an OnStartingUp method including executable instructions to be executed to load states of the navigation-based web application when it is being launched;

an OnShutDown method including executable instructions that are executed when the navigation-based web application is being shut down; and

a ShutDown method that, when called, is operative to cause the states of the navigation-based web application to be saved before it is shut down,

wherein:

a navigation-based web application object is created after the navigation-based web application is executed at the computing device, the navigation-based web application object:

instantiating the navigation-based web application; and

residing in a runtime execution environment of the computing device; and

state information of each of the plurality of resources of the navigation-based web application is:

persisted in the navigation-based web application object;  
made accessible to the plurality of other resources of the navigation-based web application; and  
modified according to the one or more business logic during a session of the navigation-based web application.

**17. (Currently amended)** The computer-readable storage medium recited in claim 16, wherein the application programming interface further comprises a Windows collection in which is stored information that identifies one or more windows that are used in connection with the navigation-based web application.

**18. (Currently amended)** The computer-readable storage medium recited in claim 16, wherein the application programming interface further comprises a Resources property that specifies resources that apply to pages within an extent of the navigation-based web application.

**19. (Currently amended)** A computer-readable storage medium having computer-executable components for supporting the execution of a navigation-based web application at a computing device, the components comprising:

an application programming interface exposed by the navigation-based web application, the navigation-based web application comprising:

multiple web pages expressed in declarative languages and hyperlinked together;

a plurality of resources distributed to the multiple web pages, the plurality of resources each having state information reflecting its current state; and one or more business logic within an extent of the navigation-based web application, the one or more business logic being applied to the multiple web pages and the plurality of resources of the navigation-based web application,

the application programming interface including:

a Properties collection that stores state information of the plurality of resources of the navigation-based web application during execution; and

a StartUpURI property that specifies the resources to which the navigation-based web application navigates upon being launched,

wherein:

a navigation-based web application object is created after the navigation-based web application is launched at the computing device, the navigation-based web application object:

~~instantiating the navigation-based web application;~~ and

residing in a runtime execution environment of the computing device; and

the state information of the resources in the Properties collection of the navigation-based web application is:

persisted within the navigation-based web application object;  
made accessible to the plurality of other resources within the navigation-based web application; and  
modified according to the one or more business logic during a session of the navigation-based web application.

**20. (Cancelled).**

**21. (Currently amended)** The computer-readable storage medium recited in claim 19, wherein the plurality of resources further comprise an executable resource.

**22. (Currently amended)** The computer-readable storage medium recited in claim 19, wherein the application programming interface further comprises a set of events related to an occurrence of a navigation by the navigation-based web application.

**23. (Currently amended)** The computer-readable storage medium recited in claim 22, wherein the set of events comprises a Navigating event indicative of an initiation of the navigation.

- 24. (Currently amended)** The computer-readable storage medium recited in claim 22, wherein the set of events comprises a Navigated event indicative of completion of the navigation.
- 25. (Currently amended)** The computer-readable storage medium recited in claim 22, wherein the set of events comprises a NavigationError event indicative of an occurrence of an error during the navigation.
- 26. (Currently amended)** The computer-readable storage medium recited in claim 22, wherein the set of events comprises a NavigationProgress event that is raised periodically during the navigation to enable information about the navigation to be discerned.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUONG N. HOANG whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng A. An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. N. H./  
Examiner, Art Unit 2194

/Li B. Zhen/  
Primary Examiner, Art Unit 2194